112701 VALIDATION SHEET URF # 00066943 PAGE OF 3/21/78

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CITATION:

P.C.	SC #	CHEMICAL NAME
		Technical?
		PP581

Validator: R. Balcomb

Date: 3/21/78

Test Type: Fish Acute 96 hr. LC_{50}: Rainbow Trout

Test ID.# ES-G

CITATION:

CITATION: Hill, R.W. et al. Determination of the Acute Toxicity of PP581 to Rainbow Trout (Salmo gairdnerii). ICI; No. BL/B/1758. November 1976.

VALIDATION CATEGORY: Supplemental

RESULTS: The acute toxicity of PP581 was determined in Freshwater at 13°C. The toxicant was dissolved in DMSO and it was reported that a level of less than 10 mg/L of DMSO was used in the test vessels. The following mortality figures were determined:

24 hr. LC_{50}=0.155 mg/L
48-hr. LC_{50}=0.09 mg/L
96-hr. LC_{50}=0.051 mg/L

The no effect level was determined to be 0.015 mg/L.

VALIDATION CATEGORY RATIONALE: See preceding test ES-F

REPAIRABILITY: See preceding test ES-F.

% a.i. not given
nominal used even though measured data was available

Additional Comments

1. The exposure concentrations (measured and nominal) and survival:

Survivors 96-hr	0	0	0	0	10	10	10	10	10
Nominal	0.22	0.15	0.10	.068	.047	.033	.022	.015	.010
Mean Measured	0.182	0.125	0.103	.055	.029	.023	.0215	.0110	.0092

Ten fish were used per concentration level.

2. A flow-thru system was utilized. The LC_{50}'s were determined via a geometric mean survival period method:

$$GMSP = \exp\left\{ \sum_{i=1}^{N} \sqrt[N_i]{(\log_e t_1)^{N_1} (\log_e t_2)^{N_2} \ldots (\log_e t_N)^{N}} \right.$$

where N_i is number fish which die at time t_i and $\sum_{i=1}^{N} N_i$ is the total fish in the test. Here total is ten.

3. Control tests were reported run but no survivorship information is given.

4. The lowest recorded Oxygen level was 87% of saturated, the pH range was 7.6-7.8.

5. Toxic symptoms included keeling and bleeding gills.

6. The fish ranged in weight from 4.9 to 6.8 with mean of 6.0 gm.

7. The 96-hr. LC_{50} calculated by the reviewer using measured concentrations was 0.045 mg/L (Regression Analysis).